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EXAMINER				
STORMER, RUSSELL D				
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3617				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/582,724

Applicant(s)

CAPPELLOTTO, GUIDO

Examiner

Russell D. Stormer

Art Unit

3617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1, 3-16, 22-24, 26-28 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2, 17-21, 25, and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/7/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Drawings

The drawings were previously objected to under 37 CFR 1.83(a) as failing to show the "gas taper threads" as described on pages 2, 3, and 4 of the specification.

The threads of the nipples and the openings in the rim are shown only schematically in the drawings.

However, Applicant has argued that those of ordinary skill in the art would readily understand what is meant by the term "gas taper threads" and the uses of such threads. (Page 8 of the Response filed August 7, 2008) Accordingly, since such threads and their many applications are notoriously well-known the objection to the drawings is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2 and 25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Leo et al.

As shown in figures 4, 5, and 6, Leo et al discloses a wheel comprising a plurality of spokes connected to a single channel rim. Each spoke 4 includes a nipple 20 inserted through an opening 41' in the rim in a gas tight fit, with the nipple having

internal threads 29 in a blind hole 28 to threadedly receive the threaded end 12 of the spoke in a manner that would create an axial bidirectional locking means.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leo et al in view of Vetterlein.

Leo et al meets all of the limitations of claim 2 as set forth above, and is further applied in that the bidirectional locking means includes a shoulder 25 on the shank of the nipple 20. With respect to claims 18-20, Leo et al further discloses the opening in the rim to include a shoulder 42' to receive or seat an annular sealing member 14.

The bidirectional locking means of Leo et al does not include threads on the outside of the nipple which can engage a female thread, and does not show a nut screwed onto the shank of the nipple.

Vetterlein teaches two means of coupling a spoke to the rim of a wheel. The first means, as shown in figure 1, includes a nipple having a threaded hole which receives a threaded portion of a collar 4 of a spoke to bidirectionally lock the spoke in place on the rim. Like Leo et al, this arrangement does not include a nut threaded onto the shank of the nipple. The second arrangement of Vetterlein, shown in figure 4, comprises a nipple

having a threaded hole to receive the threaded end of a spoke, and a nut or "union" having female threads being threaded onto the threaded shank of the nipple.

From this teaching it would have been obvious to substitute a bidirectional locking assembly having a nut threaded onto the shank of the nipple such as that taught by in figure 4 of Vetterlein as this would use the nut to tension the spoke with respect to the nipple, and would reduce the strain on the spoke and produce a larger threaded contact area (between the nut and the shank of the nipple) which would be less likely to produce stripped threads. Further, the substitution of one well-known spoke and nipple coupling arrangement for another would have been well-within the realm of ordinary skill in the art, and the results of such substitution would be predictable.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leo et al in view of Chiang et al.

Leo et al meets the limitations of claim 2 as noted above, but the spokes are not disclosed as being made of a light alloy.

Chiang et al teaches a spoke 60 that is made of steel, and a spoke 60' that is made of aluminum alloy. See figures 5 and 6 and lines 14-36 of column 1.

From this teaching it would have been obvious to those of ordinary skill in the art that the spokes of a wheel may be made of steel or aluminum alloy, and to choose aluminum alloy for the spokes of Leo et al would have been obvious in order to reduce the weight of the wheel, or to improve the wheel's resistance to corrosion, as is well-known. The results of using one material over the other would have been predictable.

Response to Arguments

Applicant's arguments filed August 7, 2008 have been fully considered but they are not persuasive.

Applicant specifically argues that the Leo et al patent does not disclose or suggest each nipple fitted to the rim in a gastight manner by "axial bidirectional locking means." Applicant attempts to support this argument by providing the opinion that the "wheel of Leo et al will not retain air in a tubeless tire system." Applicant further opines that the gasket of Leo et al would be deteriorated by compression from the "pumping effect when the nipple is moved towards the cup" and that "air would leak when the nipple is moved away from the cup 40." Applicant offers no evidence to support this position.

In at least paragraph 0021 and claim 2, Leo et al describes the rim as receiving a tubeless tire.

Absent any evidence to the contrary, those of ordinary skill in the art would recognize Leo et al as disclosing an airtight or gastight rim and tire assembly.

However, even if Applicant's arguments or opinions with respect to the inability of the sealing member(s) of Leo et al to maintain a lasting seal between the openings in the rim and the spoke nipples, this line of argument is irrelevant because the sealing means would seal the rim at least initially, and would therefore be functional.

As for the limitation of an "axial bidirectional locking means," Applicant has not really explained why the nipple of Leo et al is not retained in the hole in the rim by axial

bidirectional locking means. The above-noted sealing arguments notwithstanding, Applicant has not identified any structure in the claims which corresponds to the "axial bidirectional locking means" and is not found in the Leo et al patent.

It is submitted that the limitation "axial bidirectional locking means" is extremely broad, and that any structure which would retain a nipple in a hole in a rim would meet this limitation. The gasket or sealing means 14 (of figures 4-6 of Leo et al) can be considered to be an "axial bidirectional locking means" inasmuch as it has an axial dimension, it has openings at either end creating a "bidirectional" through-hole, the spoke nipple is inserted into the sealing means in an axial and/or bidirectional manner, and the sealing member 14 locks the spoke nipple in the hole in the rim.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (571) 272-6687. The examiner can normally be reached on Monday through Friday, 9 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Russell D. Stormer/
Primary Examiner, Art Unit 3617